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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/854,166	05/11/2001	Paul R. Goldberg	QUSA.021US0	7117

36257 7590 04/03/2006

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EXAMINER
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KNEPPER, DAVID D

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/854,166	GOLDBERG ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	David D. Knepper	2654	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 28-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2 sheets</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

1. Applicant's correspondence filed on 21 March 2002 (IDS) has been received and considered. Claims 1-79 are pending.
2. This application was abandoned following a requirement for Restriction mailed 13 Dec 2004. This application was revived following a Petition filed 8 November 2005 which was granted on 1 Dec 2005.
3. The Petition included an election of group I. Claims 1-27, stating the applicant's belief that claim 27 was erroneously placed in group II. This argument is correct.
4. The election of group I did not contain any arguments to support traversal of the requirement so is treated as an election without traverse and the requirement is made FINAL.
5. This application contains claims 28-51 drawn to an invention nonelected without traverse in Paper received 8 November 2005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

**Information Disclosure Statement (IDS)**

6. The International Search report does not qualify as prior art because it is not, of itself, a published document (it is not even clear when this document was published since the date provided is when the search was complete). However, it does qualify as a statement of relevance (37 CFR 1.98(3)(i)) if the relationship between the claims of the instant application and the PCT application searched is identified. However, if it was published as part of an examined PCT application, then why did the applicant fail to provide the document under which it was published?

The IDS indicated that copies of all the references were provided but none are evident on the record. Therefore, only US patents listed were considered.

### **Title**

7. The title of the invention is objected to because of the inclusion of “and other types of signals”. While the specification suggests that it is possible to add noise to other types of signals such as video, no details for achieving such desired results are present in the application.

The terms “adding imperceptible noise” contradicts the subject matter of claim 11 which is towards “removing at least one component”.

Correction is required.

### **Drawings**

8. The drawings are object to.

The relationship of figure 14 to the invention is not disclosed. The description on page 10 indicates that they are illustrating before and after representations of anti-compression processing but the figure itself suggests that the waveforms illustrate stereo imaging using conversion of R/L to M/S which is merely Right/Left stereo converted to Middle/Side stereo using the standard sum/difference technique. The term “Babyface” appearing in the figure is not explained in the specification.

The blocks of figure 16 are not labeled and referenced from the specification.

The forcing function generator 791 and degradation generator 763 are not explained. That is, the functions they are supposed to produce are not defined.

**Priority Claims**

9. The applicant(s) should check their filing receipts and/or the Patent Application Information Retrieval (PAIR) system for the acknowledgment of their **domestic** priority or benefit claims (if any) under 35 USC 119(e), 120 or 121 (37 CFR 1.78).

**Specification**

10. The disclosure is objected to because of the following informalities:

The statement on pages 42-43 regarding application to "Video and Other Applications" are considered statements of desired results.

Appropriate correction is required.

**Claims**

11. Claims 1-27 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for acoustic signals, does not reasonably provide enablement for any known "human interface signal" or how to "modify an encrypted compressed version" as claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

5 examples on pages 4-6 are supposedly directly towards a first embodiment and pages 6-7 have 5 examples of a second embodiment but these do not have corresponding drawings or detailed descriptions in the specification.

Claims 1, 19: The detailed description makes it clear that the addition of noise must be

carefully added according to masking functions based on the human ear (page 11, specification). These are known in the art as psychoacoustic masking functions and are limited to acoustic (audio) signals.

The applicant fails to teach any application of audio noise insertion to other human interface signals such as look (visual data), smell (olfactory data), taste and feel (touch).

Pages 42-43 merely lists “video and other applications” as possibilities with an emphasis on video. While methods of video compression are well known, the applicant fails to indicate any particular application of noise insertion to any known method of video compression. The applicant similarly fails to specify how to insert any type of “noise” other than audio.

Claim 11 contradicts the teachings of the specification by “removing” components while the specification teaches adding noise in frequency bands (specification pages 12-13 and title). Contradictory claims should be canceled (alternatively, contradictory teachings in the specification should be deleted to pursue an invention of this subject matter). The current title would be considered misleading if this claim is considered indicative of the invention.

Claims 8-10 and 25- 27: The use of an alternate or second type of compression is not taught in the specification. In fact, the compress 557 block of figure 6 provides no details (see page 28 of specification) for compression. The application provides generic examples on pages 31 and 32 of Dolby AC-3 and MP3 compression by name only. No teachings provide enablement for selection among different types of compression nor do any teachings provide the details to explain the conditions for selecting different types of compression. Similarly, there is

no disclosure to indicate what sort of overhead in terms of header bit allocation would be necessary to inform any decoder of when during the bit-stream to switch to a different decoder. Depending on how many types of encoders (decoders) are used, this implementation would be doomed to fail for any system which did not have every type of encoder (decoder) used. The lack of support renders this limitation unsearchable since there is no way to know exactly what type of coding selection this might entail. However, to further prosecution, this limitation will be considered as admittedly obvious over the combination taught by Dolby (page 31, specification) which provides AC-3 in combination with Huffman encoding. It is noted that page 6 (top) indicates that there is a known monitoring ability for selection of different encoding process but no teaching in support of this example is evident.

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-10 and 12-27 are rejected under 35 U.S.C. § 103 as being unpatentable over Warren (5,719,937).

As per claims 1, 2, 15, 19, 20 and 19: “Modifying the interface (audio) signal in a manner that does not change a perception of the signal by a human ear” is taught by Warren in column 2, lines 28-31 where he teaches that his control tag and master tag information may be...spectrally shaped and power-adjusted...to render them substantially imperceptible.

“modifies the signal sufficiently so that a reduced quality is perceptible” is taught in column 2, lines 51-53 where he teaches that as additional generations of copies are made, the quality or fidelity of the underlying data signal is reduced.

It is noted that Warren does not explicitly use the term “compression” combined with “decompressed” versions as claimed. However, he teaches that his method is meant to work with compressed digital audio streams such as those, which follow the MPEG, Musicam, and Dolby AC-2 and AC-3 formats. Therefore, it would have been obvious for a person having ordinary skill in the pertinent art, at the time the invention was made, to modify audio data to degrade the signal as it is compressed and decompressed because Warren explicitly teaches that his copy management system is also designed to work with common compression methods such as those listed above which rely on psychoacoustic masking properties and varying block sizes.

Claims 3-7, 16, 17, 23, 24: “Increasing levels of certain frequency components of the audio signal” is taught by his spread spectrum signals which are spectrally shaped and power-adjusted (col. 2, lines 28-30). The compression formats for digital audio streams noted above all select the number of bits based on psychoacoustic masking thresholds based on frequency band analysis (i.e. – Fourier transform).

Claims 8-10 and 25-27: Selecting a different compression mode is admitted by the applicant as obvious on page 31 where the specification teaches that particular compression



methods such as Dolby AC-3 also use Huffman coding for additional compression. However, the wording of this claim actually contradicts the use actual implementation of this technique because the claim requires the invocation of “one compression mode that is different” whereas the combination by Dolby noted above is not at all a selection between different coders but is a combination or series of coding.

Claims 12: The “communications network” is taught by Warren who explicitly teaches that it would have been obvious to use his system in other communication networks (see column 11, lines 30-34).

Claim 13, 18: The use of “a physical storage medium” is taught by Warren’s media in figures 1-4 (see col. 4, lines 26-29).

Claim 14: Minimizing initial perception but increasing the perception for a second compression is suggested by Warren who teaches that his system is designed to cumulatively degrade the quality of the data signal according to the number of generations (abstract) which clearly teaches that initial generation will be less perceptible but that later (2+) will be more significantly degraded.

Claim 21, 24: Altering “timing or phase relationships” is suggested in column 8, lines 35-40 where he teaches that when an audio source includes multiple channels...data may be embedded in two or more different channels at the same or different times.

#### **Prior Art**

14. The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Fukuda (6,469,239) is cited to show that it is known to embed codes that cause a degradation of quality to discourage illegal copying.

**15. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

TC2600 Fax Center  
(703) 872-9314

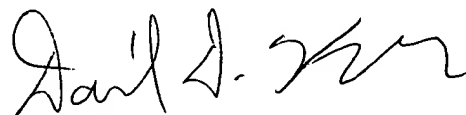
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Knepper whose telephone number is (703) 305-9644.

The examiner can normally be reached on Monday-Thursday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (703) 305-9645.

Any inquiry of a general nature or relating to the status of this application should be directed to customer service whose telephone number is (703) 306-0377.



David D. Knepper  
Primary Examiner  
Art Unit 2654